

LEVITATION AND BURNS

To most people the word "levitation" brings forth memories of dubious psychic mediums of the Victorian era floating in the air in the middle of a seance, but the engineers and the physicians have now succeeded in applying the term quite correctly to the treatment of badly burned patients. In an article in *Lancet* for June 10, Scales *et al.* define levitation as the support of a body without visible means, and use it specifically to mean the support of a patient on air. They have developed a bed that does just that and offers the advantages of supporting the patient with pressures less than those experienced normally lying in bed, of allowing wounds to dry rapidly and thus minimize the loss of protein, of controlling body temperature and of reducing the risk of bacterial infection.

The flexible top levitation bed they have developed arose out of studies of air seals for use on hovercraft, and consists of a series of inflatable fabric pockets forming a plenum air chamber under the patient's body and legs. After trials with healthy volunteers, they used the bed on two badly burned patients, treating one for six hours and the other for 16 hours by sterile air support. Weeping for moist areas can be dried within two hours, but it may take 16 to 24 hours of air support to get a dry eschar of sufficient strength to take the patient's weight afterwards. Body temperature can be controlled by the air temperature, and no undesirable physiological changes could be detected. The method seems worth extended trial, and in fact to be the only one that can provide continuous exposure treatment for circumferential burns.

SELF-POISONING

Cases of self-poisoning in Britain are increasing steadily in recent years, as two articles in the *British Journal of Preventive and Social Medicine* for July 1967 illustrate. The term "self-poisoning" is preferred to attempted suicide and is defined as deliberate acute self-administration of a drug or poison with the intent of causing or risking death, or in order to give the impression of such intention.

Evans analyzed data from the Oxford area for 1962-65 and found the high total of 767 admissions to hospital for patients aged 10 or over. Five hundred of the patients were women, 40 appeared more than once and one person appeared six times. Drugs used were mainly barbiturates (45%) or aspirin (26%), coal gas being favoured only by 3%. There was a maximal annual prevalence in early adult life, and excess of divorced and separated persons in both sexes. One finding of note is the high rate in teenage wives, and another in the contrast between a high rate in bachelors under 50 and a low one later, perhaps because these individuals are late in maturing (author's inference, not mine). About one-third of the patients were transferred to a mental hospital and only 10% escaped a psychiatric examination. There is little doubt that self-poisoning

is increasing in frequency in this area; there has been a rise in rate of 63% in the last four years.

Graham and Hitchens, who analyzed admissions in Cardiff, found a similar picture, with an increase both in suicidal and accidental poisonings over 16 years. They collected 1736 cases of deliberate and 966 cases of accidental poisoning in the period 1950-65. Of the deliberate cases, 42% were serious. One odd finding is that the trend in deliberate poisoning seems to have been checked since 1957. In 20% of serious deliberate poisonings there was organic illness compared with only 12% in those obviously just making a gesture. The illness was more often painful or uncomfortable (such as peptic ulcer) than disabling or lethal (arthritis or cancer). One-quarter had already been under psychiatric care and another 38% had a history of mental illness. Marital stress seemed a more potent factor in the young and bereavement in the old.

Prescribed medicines were most commonly used, but aspirin and other over-the-counter drugs were used in 29%. Salicylates were associated with youth, suicidal gesture and good physical health, whereas barbiturates were associated with ageing (as in Oxford), determination and organic disease.

LEMMING FEVER OF MAN

No, this item is not concerned with population explosions in man but with another matter. The behaviour of lemmings with their periodic migrations to the sea and mass drownings has been the subject of much speculation lately, and the apparently foolish behaviour of these little rodents has been compared with that of highly fertile man. Pearson and Barwell in the *London Hospital Gazette* for May 1967 write on the lemming migrations in Scandinavia, where there is a four-year cycle of steep build-up to a maximum population followed by a precipitous drop in numbers. Presumably some of the usual population-controlling factors such as food shortage, disease or predation are involved in this crash in numbers; in fact, the sudden operation of one highly effective factor would seem to be responsible.

The authors think that tularemia may be the factor involved, for during the migratory year preceding the drop in population there are epidemics of what is locally known as lemming fever, and these years of peak population coincide with the greatest incidences of human tularemia in the localities. Hence human epidemics might be predicted by observation of the disease state in the lemming population. In January of this year there was an epidemic with 400 human tularemia cases in a county of Sweden, and live trapping of small mammals revealed a 77% incidence of *P. tularensis* in their spleen. A research program has been started in Norway to investigate the incidence of tularemia in animals and man, with trials of a fluorescent antibody test to monitor animal tularemia as a means of predicting human disease and taking prophylactic measures.

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